Amendment Dated December 21, 2007
Serial No. 10/744,000

IN THE CLAIMS

Claim 1. (Currently Amended)   A method for enabling multiple Quality of Service (QoS) support over Frame Relay (FR) and Ethernet networks, the method comprising the steps of:

Identifying identifying a packet according to an Ethernet a first network protocol for servicing;

Determining determining a QoS metric for the identified packet; and

Based based upon the determined QoS metric, servicing the identified packet for transmission in accordance with a Frame Relay second network protocol.

Claim 2. (Currently Amended)   The A method as claimed in of claim 1, wherein the step of determining a QoS metric includes considering Ethernet information.

Claim 3. (Currently Amended)   The A method as claimed in of claim 2, wherein the Ethernet information includes Ethernet port information.

Claim 4. (Currently Amended)   The A method as claimed in of claim 2, wherein the Ethernet information includes virtual local area network identifier (VLAN ID) information.

Claim 5. (Currently Amended)   The A method as claimed in of claim 2, wherein the Ethernet information includes p-bits information.

Claim 6. (Currently Amended)   The A method as claimed in of claim 5, wherein the Ethernet information further includes VLAN ID information.

Claim 7. (Currently Amended)   The A method as claimed in of claim 5, wherein the step of servicing further includes assigning a drop precedence to the packet based on the p-bits information.

Claim 8. (Currently Amended)   The A method as claimed in of claim 1, wherein the step of determining a QoS metric includes considering Upper Layer Protocol (ULP) information.

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Claim 9.   (Currently Amended)   The A method as claimed in of claim 8, wherein the ULP information includes Internet Protocol (IP) packet information

Claim 10. (Currently Amended) The A method as claimed in of claim 9, wherein the IP packet information includes Differentiated Services Code Point (DSCP) bit information.

Claim 11. (Currently Amended) The A method as claimed in of claim 10, wherein the IP packet information further includes VLAN ID information.

Claim 12. (Currently Amended) The A method as claimed in of claim 10, wherein the step of servicing further includes assigning a drop precedence to the packet based on the DSCP bit information.

Claim 13.   (Currently Amended)   A method as claimed in claim 1, wherein the first network protocol is FR, the second network protocol is Ethernet, and the step of determining a QoS metric includes A method for enabling multiple Quality of Service (QoS) support over Frame Relay (FR) and Ethernet networks, the method comprising the steps of:

identifying a packet according to a Frame Relay protocol for servicing;

determining a QoS metric for the identified packet by considering FR information; and

based upon the determined QoS metric, servicing the identified packet for transmission in accordance with an Ethernet protocol.

Claim 14. (Currently Amended) The A method as claimed in of claim 13, wherein the FR information includes data link connection information.

Claim 15. (Currently Amended) The A method as claimed in of claim 13, wherein the step of servicing further includes assigning a drop precedence to the packet based on discard eligible (DE) bit information.

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Claim 16. (Currently Amended) The A method ~~as claimed in~~ of claim 1, wherein ~~the first network protocol is Ethernet and the second network protocol is FR and~~ the step of servicing includes mapping the packet to a Frame Relay Data Link Connections (DLC) ~~DLC~~ and scheduling the packet for transmission according to a sub-connection scheduling scheme.

Claim 17. (Currently Amended) The A method ~~as claimed in~~ of claim 1, wherein ~~the first network protocol is Ethernet and the second network protocol is FR and~~ the step of servicing includes mapping the packet to one of a plurality of Frame Relay Data Link Connections (DLCs) ~~DLC's~~ and scheduling the packet for transmission according to a connection scheduling scheme.

Claim 18. (Currently Amended) The A method ~~as claimed in~~ of claim 13, wherein ~~the first network protocol is FR and the second network protocol is Ethernet and~~ the step of servicing includes mapping the packet to an Ethernet port and scheduling the packet for transmission according to a class scheduling scheme.

Claim 19. (Currently Amended) The A method ~~as claimed in~~ of claim 13, wherein ~~the first network protocol is FR and the second network protocol is Ethernet and~~ the step of servicing includes mapping the packet to one of a plurality of Ethernet ports and scheduling the packet for transmission according to a basic scheduling scheme.

Claim 20. (Currently Amended) A system for enabling multiple Quality of Service (QoS) support over FR and Ethernet networks comprising:

    an input; and

    control circuitry associated with the input and adapted to:

        identify a packet according to ~~a first network~~ an Ethernet protocol for servicing;

        determine a QoS metric for the identified packet; and

        based upon the determined QoS metric, service the identified packet for transmission in accordance with a ~~second network~~ Frame Relay protocol.

Claim 21. (Currently Amended) The A system ~~as claimed in~~ of claim 21, wherein the control circuitry is further adapted to consider Ethernet information to determine a QoS metric.

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Claim 22. (Currently Amended) The A system ~~as claimed in~~ of claim 22, wherein the Ethernet information further includes Ethernet port number information.

Claim 23. (Currently Amended) The A system ~~as claimed in~~ of claim 22, wherein the Ethernet information further includes VLAN ID information.

Claim 24. (Currently Amended) The A system ~~as claimed in~~ of claim 22, wherein the Ethernet information further includes p-bits information.

Claim 25. (Currently Amended) The A system ~~as claimed in~~ of claim 25, wherein the Ethernet information further includes VLAN ID information.

Claim 26. (Currently Amended) The A system ~~as claimed in~~ of claim 25, wherein the control circuitry is further adapted to assign a drop precedence to the packet based on the p-bits information.

Claim 27. (Currently Amended) The A system ~~as claimed in~~ of claim 21, wherein the control circuitry is further adapted to consider Upper Layer Protocol (ULP) information to determine a QoS metric.

Claim 28. (Currently Amended) The A system ~~as claimed in~~ of claim 28, wherein the ULP information includes Internet Protocol (IP) information.

Claim 29. (Currently Amended) The A system ~~as claimed in~~ of claim 29, wherein the IP information includes Diff-Serv Differentiated Services Code Point (DSCP) bit information.

Claim 30. (Currently Amended) The A system ~~as claimed in~~ of claim ~~30~~29, wherein IP information further includes virtual local network identifier (VLAN ID) information.

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Claim 31. (Currently Amended) The A system ~~as claimed in~~ of claim 30, wherein the control circuitry is further adapted to assign a drop precedence to the packet based on the DSCP bit information.

Claim 32. (Currently Amended) A system ~~as claimed in claim 21 wherein the first network protocol is FR, the second network protocol is Ethernet, and wherein the control circuitry is further adapted to~~ for enabling multiple Quality of Service (QoS) support over FR and Ethernet networks comprising:

    an input; and

    control circuitry associated with the input and adapted to:

        identify a packet according to a Frame Relay protocol for servicing;

        consider FR information to determine a QoS metric for the identified packet; and

        based upon the determined QoS metric, service the identified packet for transmission in accordance with an Ethernet protocol.

Claim 33. (Currently Amended) The A system ~~as claimed in~~ of claim 33, wherein FR information includes data link connection information.

Claim 34. (Currently Amended) The A system ~~as claimed in~~ of claim 33, wherein the control circuitry is further adapted to assign a drop precedence based on DE bit information.

Claim 35. (Currently Amended) The A system ~~as claimed in~~ of claim 21, wherein ~~the first network protocol is Ethernet and the second network protocol is FR and~~ the control circuitry is further adapted to map the packet to a Frame Relay Data Link Connections (DLC) ~~DLC~~ and schedule the packet for transmission according to a sub-connection scheduling scheme to service the packet.

Claim 36. (Currently Amended) The A system ~~as claimed in~~ of claim 21, wherein ~~the first network protocol is Ethernet and the second network protocol is FR and~~ the control circuitry is further adapted to map the packet to one of a plurality of Frame Relay Data Link Connections

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(DLCs) ~~DLC's~~ and schedule the packet for transmission according to a connection scheduling scheme to service the packet.

Claim 37. (Currently Amended) The ~~A~~ system ~~as claimed in~~ of claim ~~21~~32, wherein ~~the first network protocol is FR and the second network protocol is Ethernet and~~ the control circuitry is further adapted to map the packet to an Ethernet port and schedule the packet for transmission according to a class scheduling scheme to service the packet.

Claim 38. (Currently Amended) The ~~A~~ system ~~as claimed in~~ of claim ~~21~~32, wherein ~~the first network protocol is FR and the second network protocol is Ethernet and~~ the control circuitry is further adapted to map the packet to one of a plurality of Ethernet ports and schedule the packet for transmission according to a basic scheduling scheme to service the packet.

Claim 39. (Currently Amended) The ~~A~~ system ~~as claimed in~~ of claim 21, wherein the system is located at an edge of a core network.

Claim 40. (Currently Amended) The ~~A~~ system ~~as claimed in~~ of claim 21, wherein the system is located in a user element.

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